CENTRAL INTELLIGENCE AGENCY
INFORMATION REPORT

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COUNTRY East Germany/USSR/Poland

SUBJECT Production of Nickel Wire Mesh

REPORT

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This is UNEVALUATED Information

THE SOURCE EVALUATIONS IN THIS REPORT ARE DEFINITIVE.
THE APPRAISAL OF CONTENT IS TENTATIVE.
(FOR KEY SEE REVERSE)

1. Fine nickel wire drawing at Kabelwerke Koepenick ceased in May 1952. The laborers for this work were sent to other jobs and equipment for fine wire drawing has not been used since that time. Nickel wire mesh production at TEWA-Neustadt was terminated shortly after the cessation of fine wire drawing at Kabelwerke Koepenick. 25X1

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resumption of production is doubtful. TEWA is interested in the resumption of this production because the plant had a large investment in the program. At present TEWA is operating at a financial loss and is attempting to convert to other types of metal weaving and perlon production. Kabelwerke Koepenick did not suffer, because fine wire drawing represented only 10 percent of Koepenick's total production.

3. Until 1952, orders for fine wire were placed with the Koepenick and Hettstedt wire drawing plants by the Soviet Control Commission (SKK) through SAG Kabel. These two plants supplied four or five wire mesh plants under the TEWA complex. Orders for wire were placed annually and revised upward toward the end of each year. During 1949-1950, the combined production of fine wire at Koepenick and Hettstedt was five tons per year. In 1950, the Koepenick capacity was increased to five tons per month but the plant only delivered three and one-half tons per month. The total amount of fine wire delivered by both Koepenick and Hettstedt between 1950 and May 1952 was 70 tons per year. None of this wire was shipped to the USSR; all went to the TEWA complex. TEWA paid Koepenick 150 DME per kilo of wire. Koepenick made a profit of 35 percent on the wire.

4. During 1949 and 1950 Koepenick was drawing wire with a diameter of 0.04 mm.

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(Note: Washington distribution indicated by "X"; Field distribution by "#".)

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In 1950 the plant began to draw fine wires of two sizes. One was a 0.051 mm. wire and the other was 0.053 mm. The 0.051 mm. wire was the warp wire and the 0.053 mm. was the woof. Wire was drawn to a tolerance of 1 mu. The acceptable limit for the 0.051 mm. wire was between 0.050 mm. and 0.052 mm., and for the 0.053 mm. wire, between 0.052 mm. and 0.054 mm.

5. The diameter of the wire was tested by an optometer which measured within 1 mu. An ultra-optometer measured the cross-section of the wire to determine any distortion away from a circular cross-section. The ultra-optometer measured to 0.1 mu. Required tensil strength of the wire was 40 kg./cm.^{2}. Required elasticity was 18 percent. No acid tests on wire were carried out at Koepenick.

6. At TEWA the mesh was subjected to an acid test which consisted of dipping pieces of the mesh into a nitric bath for a certain number of seconds[1]. This test determined any impurities, particularly hydrocarbons, which had been absorbed into the wire during drawing and which would result in failure of the wire at a later date. After the acid bath, the mesh was viewed by a microscope to determine if any of the strands had disappeared and if the loss on each wire in the mesh was approximately equal. As a result of the test, two categories of mesh were established. Category 1 contained the mesh with three strand failures or less per square meter. Category 2 contained the remainder of the mesh. Twenty percent of the mesh fell into Catagory 2. RAZNOIMPORT was responsible for acceptance problems of TEWA. Both catagories of mesh were shipped to the USSR.

7. During the 1950-1952 period, Koepenick employed 400 people for the production of diamond dies and 180 people for fine wire drawing. The plant had 48 "Drathaus L VI" wire drawing machines and 14 annealing ovens. 25X1

8. In 1950-1951 the Soviets ordered 90 annealing ovens and an unknown 25X1
number of wire drawing machines. The ovens were taken first to Koepenick for testing. In order to be acceptable, the ovens had to reach and maintain a temperature of 800°C. within five degrees. These ovens anealed 24 wires simultaneously at a rate of 4 to 5 meters per minute. The cost of each oven was 24,000 DME. 25X1
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9. Koepenick did not ship any wires or dies to Poland but at one time Rottstedt had a small wire order from Poland. In 1951 a Polish Commission came to Koepenick and requested a technological study on fine wire drawing. This study was obtained from Koepenick and given to the Poles by the East German State Planning Commission.

10. A four or five-man Soviet acceptance team visited Koepenick irregularly to examine the wire drawing process. Their last visit took place in February or March of 1952. A German by the name of Fechlar (fnu) was permanently assigned by the SKK to the plant but no Soviets were ever permanently assigned.

11. Stesnov (fnu), a Soviet, probably an engineer, came to the plant from time to time. He examined the wire for deformation away from the circular cross- 25X1

A Soviet supervisor, Sobolev (fnu), from Karlshorst, also visited the plant.

12. A reparations office was located in Berlin in the building of the Ministry for Heavy Machine Construction. This office was staffed by three or four Germans. They may have been engaged in atomic energy deliveries because they purchased nickel plated equipment. At one time this office purchased 10-15 kilos of nickel wire from a plant in Westphalia. Rohrig (fnu), a Referent in the Ministry for Heavy Machine Construction, was interested in the nickel wire production at Koepenick in 1950-1952. If the plant ever had difficulties in production or supply, Rohrig was the man who could solve the problem. In

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September 1955, Rohrig was production leader of the Main Administration (HV) Kabel Apparate in the Ministry for Heavy Machine Construction.

1. [redacted] Comment. Details not known. 25X1

2. [redacted] Comment: Aleksandr Leonidovich Stesnov. 25X1

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